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December 29, 2003

ATTORNEY DOCKET NO.: INTEL1120(P15611)

**ATTN: Mail Stop PATENT APPLICATION**  
COMMISSIONER FOR PATENTS  
P. O. Box 1450  
Alexandria, VA 22313-1450

Sir:

Transmitted herewith for filing is a new original patent application of:

APPLICANT(S): Mineo Yamakawa and John Heck

TITLE: MICROFLUID MOLECULAR-FLOW FRACTIONATOR AND  
BIOREACTOR WITH INTEGRATED ACTIVE/PASSIVE DIFFUSION  
BARRIER

Enclosed are the following papers, including all those required to receive a filing date under  
37 CFR § 1.53(b):

	<u>Number of Pages</u>
Specification	15
Claims	7
Abstract	1
Drawing(s) – [informal]	12

EXPRESS MAIL Number: EV 318740685 US  
Date of Deposit: December 29, 2003

I hereby certify that this paper is being deposited with the United States Postal Service "EXPRESS MAIL Post Office to Addressee" service under 37 C.F.R. § 1.10 on the date indicated above and is addressed to: Attn: Mail Stop PATENT APPLICATION, COMMISSIONER FOR PATENTS, P. O. BOX 1450, Alexandria, VA 22313-1450.

Jason Berry  
(Name of Individual Depositing with P.O.)

Jason Berry  
(Signature of Individual Depositing with P.O.)

SILICON VALLEY SAN DIEGO SAN FRANCISCO AUSTIN SEATTLE SACRAMENTO LA JOLLA WASHINGTON, DC

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**GRAY CARY WARE & FREIDENRICH LLP**

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Enclosure(s):

- Initial Information Data Sheet (2 pages);
- Declaration (6 pages);
- Check No. 550507 in the amount of \$1468.00; and
- Return Receipt Postcard.

Applicant(s) claim **LARGE ENTITY** status in the above-identified application.

The filing fee is calculated as follows:

	Number Filed		Number Extra		Rate			Fee	
					Large Entity	Small Entity		Large Entity	Small Entity
Total Claims	54-20	=	34	X	\$18	\$09	=	\$612.00	\$
Independent Claims	4-3	=	1	X	\$86	\$43	=	\$86.00	\$
Multiple Dependent Claims Presented: <u>Yes</u> <u>X</u> <u>No</u>					\$	\$		\$	\$
					BASIC FEE			\$770.00	\$385.00
					TOTAL FEE			\$1468.00	\$

Check No. 550507 is enclosed as payment of the **FILING FEE**. The Commissioner is hereby authorized to apply any other required fees or any credits to Deposit Account No. 50-1355, referencing the attorney docket number shown above. A copy of this Transmittal Sheet is enclosed.

SILICON VALLEY SAN DIEGO SAN FRANCISCO AUSTIN SEATTLE SACRAMENTO LA JOLLA WASHINGTON, DC

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If this application is found to be INCOMPLETE, or if a telephone conference would otherwise be helpful, please call the undersigned at (858) 677-1456.

A duplicate copy of this letter is enclosed. Kindly acknowledge receipt of this application by returning the enclosed postcard.

All future correspondence should be addressed to:

**Lisa A. Haile, J.D., Ph.D.**  
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Respectfully submitted,

**GRAY CARY WARE & FREIDENRICH LLP**

Lisa A. Haile  
Lisa A. Haile, J.D., Ph.D.

Registration No. 38,347

12/29/03

Date

LAH/MRS:rmw

Enclosure(s)